



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/747,731	12/22/2000	Shunpei Yamazaki	SEL 233	4617

7590 02/22/2006

COOK, ALEX, McFARRON, MANZO
CUMMINGS & MEHLER, LTD.
Suite 2850
200 West Adams Street
Chicago, IL 60606

EXAMINER

FLETCHER III, WILLIAM P

ART UNIT	PAPER NUMBER
----------	--------------

1762

DATE MAILED: 02/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/747,731

Applicant(s)

YAMAZAKI ET AL.

Examiner

William P. Fletcher III

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-22, 37-40, 43-45, 48, 49 and 53-140 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-22, 37-40, 43-45, 48, 49 and 53-140 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/15/05 & 1/17/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/1/2005 has been entered.
2. Claims 20-22, 37-40- 43-45, 48, 49, and 53-140 are pending.

Information Disclosure Statement

3. The information disclosure statements (IDS) submitted on 8/15/2005 and 1/17/2006 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

Response to Arguments

4. Applicant's arguments filed in the response of 12/1/2005 have been fully considered but they are not persuasive. Applicant argues particular features of each reference individually, but does not address the reasons for combining the references set-forth by the examiner. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).
5. The examiner further acknowledges applicant's statement of certain advantageous features in the first full paragraph at page 18 of the response filed 12/1/2005. None of these features are recited in the claims and are not commensurate in scope with the claims. Although

Art Unit: 1762

the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Further, The reason or motivation to modify the reference may often suggest what the inventor has done, but for a different purpose or to solve a different problem. It is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by applicant.¹

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. **Claims 20–22, 44, 45, 48, 63, 70, and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al. (US 5,817,366 A) in view of Grothe et al. (US 3,391,490 A), Monk (US 4,187,801 A), and Nagayama et al. (US 5,701,055 A).**

These claims are rejected for the same reasons as set-forth under this heading in the prior Office action.

¹ MPEP 2144

Art Unit: 1762

9. **Claims 37, 43, 48, 53, 64, and 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al. (US 5,817,366 A), in view of Bennett (US 2,435,997 A), Grothe et al. (US 3,931,490 A), and Nagayama et al. (US 5,701,055 A).**

These claims are rejected for the same reasons as set-forth under this heading in the prior Office action.

10. **Claims 38, 48, 56, 65, and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al. (US 5,817,366 A), in view of Bennett (US 2,435,997 A), Grothe et al. (US 3,931,490 A), Nagayama et al. (US 5,701,055 A), and Monk (US 4,187,801 A).**

These claims are rejected for the same reasons as set-forth under this heading in the prior Office action.

11. **Claim 39, 48, 53, 57, 66, and 77 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Arai et al. (US 5,817,366 A), in view of Nagayama et al. (US 5,701,055 A), Feuerstein et al. (US 4,627,989 A), Bennett (US 2,435,997 A), and Yamamoto et al. (JP 11-61386 A, US 6,179,923 B1 provided as English-language equivalent).**

These claims are rejected for the same reasons as set-forth under this heading in the prior Office action.

12. **Claim 40, 48, 58, 67, and 78 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Arai et al. (US 5,817,366 A), in view of Nagayama et al. (US 5,701,055 A), Feuerstein et al. (US 4,627,989 A), Bennett (US 2,435,997 A), and Yamamoto et al. (JP 11-61386 A, US 6,179,923 B1 provided as English-language equivalent) or, in the alternative, over Arai et al., in view of Nagayama et al. (US 5,701,055 A), Feuerstein et al.,**

Art Unit: 1762

Bennett, Monk (US 4,187,801 A), and Yamamoto et al. (JP 11-61386 A, US 6,179,923 B1 provided as English-language equivalent).

These claims are rejected for the same reasons as set-forth under this heading in the prior Office action.

13. **Claim 49 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Arai et al. (US 5,817,366 A) in view of Grothe et al. (US 3,391,490 A), Monk (US 4,187,801 A), and Nagayama et al. (US 5,701,055 A) as applied to claim 20 above, further in view of Spitzer et al. (US 5,258,325 A).**

These claims are rejected for the same reasons as set-forth under this heading in the prior Office action.

14. **Claims 54, 68, 71, and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al. (US 5,817,366 A), in view of Nagayama et al. (US 5,701,055 A), Bennett (US 2,435,997 A), Grothe et al. (US 3,931,490 A), and Yamamoto et al. (JP 11-61386 A, US 6,179,923 B1 provided as English-language equivalent).**

These claims are rejected for the same reasons as set-forth under this heading in the prior Office action.

15. **Claims 55, 69, 72, and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al. (US 5,817,366 A), in view of Nagayama et al. (US 5,701,055 A), Bennett (US 2,435,997 A), Grothe et al. (US 3,931,490 A), Monk (US 4,187,801 A), and Yamamoto et al. (JP 11-61386 A, US 6,179,923 B1 provided as English-language equivalent).**

These claims are rejected for the same reasons as set-forth under this heading in the prior Office action.

Art Unit: 1762

16. **Claim 59 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al. (US 5,817,366 A), in view of Nagayama et al. (US 5,701,055 A), Bennett (US 2,435,997 A) and Grothe et al. (US 3,931,490 A), as applied to claim 37 above, further in view of Spitzer et al. (US 5,258,325 A).**

These claims are rejected for the same reasons as set-forth under this heading in the prior Office action.

17. **Claim 60 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al. (US 5,817,366 A), in view of Nagayama et al. (US 5,701,055 A), Bennett (US 2,435,997 A), Grothe et al. (US 3,931,490 A), and Monk (US 4,187,801 A), as applied to claim 38 above, further in view of Spitzer et al. (US 5,258,325 A).**

These claims are rejected for the same reasons as set-forth under this heading in the prior Office action.

18. **Claim 61 rejected under 35 U.S.C. § 103(a) as being unpatentable over Arai et al. (US 5,817,366 A), in view of Nagayama et al. (US 5071,055 A), Feuerstein et al. (US 4,627,989 A), Bennett (US 2,435,997 A), and Yamamoto et al. (JP 11-61386 A, US 6,179,923 B1 provided as English-language equivalent), as applied to claim 39 above, further in view of Spitzer et al. (US 5,258,325 A).**

These claims are rejected for the same reasons as set-forth under this heading in the prior Office action.

19. **Claim 62 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Arai et al. (US 5,817,366 A), in view of Nagayama et al. (US 5,701,055 A), Feuerstein et al. (US 4,627,989 A), Bennett (US 2,435,997 A), and Yamamoto et al. (JP 11-61386 A, US 6,179,923**

Art Unit: 1762

B1 provided as English-language equivalent) or, in the alternative, over Arai et al., in view of Nagayama et al., Feuerstein et al., Bennett, Monk (US 4,187,801 A), and Yamamoto et al. (JP 11-61386 A, US 6,179,923 B1 provided as English-language equivalent), as applied to claim 40 above, further in view of Spitzer et al. (US 5,258,325 A).

These claims are rejected for the same reasons as set-forth under this heading in the prior Office action.

20. **Claim 73 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al. (US 5,817,366 A) in view of Grothe et al. (US 3,391,490 A), Monk (US 4,187,801 A), and Nagayama et al. (US 5,701,055 A), as applied to claim 20 above, further in view of Mizutani et al. (US 6,326,726 B1).**

These claims are rejected for the same reasons as set-forth under this heading in the prior Office action.

21. **Claims 81-88 and 92-100 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al. (US 5,817,366 A) in view of Grothe et al. (US 3,391,490 A), Monk (US 4,187,801 A), and Nagayama et al. (US 5,701,055 A).**

These claims are rejected for the same reasons as set-forth under this heading in the prior Office action.

22. **Claims 89-91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al. (US 5,817,366 A) in view of Grothe et al. (US 3,391,490 A), Monk (US 4,187,801 A), and Nagayama et al. (US 5,701,055 A).**

These claims are rejected for the same reasons as set-forth under this heading in the prior Office action.

Art Unit: 1762

23. Claim 101 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al. (US 5,817,366 A) in view of Grothe et al. (US 3,391,490 A), Monk (US 4,187,801 A), and Nagayama et al. (US 5,701,055 A), as applied to claim 98 above, further in view of Spitzer et al. (US 5,258,325 A).

These claims are rejected for the same reasons as set-forth under this heading in the prior Office action.

24. Claims 102-104 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al. (US 5,817,366 A) in view of Grothe et al. (US 3,391,490 A), Monk (US 4,187,801 A), and Nagayama et al. (US 5,701,055 A), as applied to claim 20 above, further in view of Bertelsen (US 3,110,620 A).

None of the cited references explicitly teach the features of these claims. Bertelsen teaches a process in which multiple layers (including transparent and conductive layers) are vapor deposited on a substrate, optionally via a mask, in which the substrate is situated above an evaporation coating source (Fig. 3 and 3:55-70). Consequently, it would have been obvious to one of ordinary skill in the art to modify the process of these references so as to arrange the substrate, mask, and coating source in this fashion. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully coating the substrate.

25. Claims 105-107 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al. (US 5,817,366 A), in view of Bennett (US 2,435,997 A), Grothe et al. (US 3,931,490 A), and Nagayama et al. (US 5,701,055 A), as applied to claim 37 above, further in view of Bertelsen (US 3,110,620 A).

None of the cited references explicitly teach the features of these claims. Bertelsen teaches a process in which multiple layers (including transparent and conductive layers) are vapor deposited on a substrate, optionally via a mask, in which the substrate is situated above an evaporation coating source (Fig. 3 and 3:55-70). Consequently, it would have been obvious to one of ordinary skill in the art to modify the process of these references so as to arrange the substrate, mask, and coating source in this fashion. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully coating the substrate.

26. Claims 108-110 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al. (US 5,817,366 A), in view of Bennett (US 2,435,997 A), Grothe et al. (US 3,931,490 A), Nagayama et al. (US 5,701,055 A), and Monk (US 4,187,801 A), as applied to claim 38 above, further in view of Bertelsen (US 3,110,620 A).

None of the cited references explicitly teach the features of these claims. Bertelsen teaches a process in which multiple layers (including transparent and conductive layers) are vapor deposited on a substrate, optionally via a mask, in which the substrate is situated above an evaporation coating source (Fig. 3 and 3:55-70). Consequently, it would have been obvious to one of ordinary skill in the art to modify the process of these references so as to arrange the substrate, mask, and coating source in this fashion. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully coating the substrate.

27. Claims 111-113 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Arai et al. (US 5,817,366 A), in view of Nagayama et al. (US 5,701,055 A), Feuerstein et al. (US 4,627,989 A), Bennett (US 2,435,997 A), and Yamamoto et al. (JP 11-61386 A, US

Art Unit: 1762

6,179,923 B1 provided as English-language equivalent), as applied to claim 39 above, further in view of Bertelsen (US 3,110,620 A).

None of the cited references explicitly teach the features of these claims. Bertelsen teaches a process in which multiple layers (including transparent and conductive layers) are vapor deposited on a substrate, optionally via a mask, in which the substrate is situated above an evaporation coating source (Fig. 3 and 3:55-70). Consequently, it would have been obvious to one of ordinary skill in the art to modify the process of these references so as to arrange the substrate, mask, and coating source in this fashion. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully coating the substrate.

28. Claims 114-116 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Arai et al. (US 5,817,366 A), in view of Nagayama et al. (US 5,701,055 A), Feuerstein et al. (US 4,627,989 A), Bennett (US 2,435,997 A), and Yamamoto et al. (JP 11-61386 A, US 6,179,923 B1 provided as English-language equivalent) or, in the alternative, over Arai et al., in view of Nagayama et al. (US 5,701,055 A), Feuerstein et al., Bennett, Monk (US 4,187,801 A), and Yamamoto et al. (JP 11-61386 A, US 6,179,923 B1 provided as English-language equivalent), as applied to claim 340 above, further in view of Bertelsen (US 3,110,620 A).

None of the cited references explicitly teach the features of these claims. Bertelsen teaches a process in which multiple layers (including transparent and conductive layers) are vapor deposited on a substrate, optionally via a mask, in which the substrate is situated above an evaporation coating source (Fig. 3 and 3:55-70). Consequently, it would have been obvious to one of ordinary skill in the art to modify the process of these references so as to arrange the

Art Unit: 1762

substrate, mask, and coating source in this fashion. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully coating the substrate.

29. Claims 117-119 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al. (US 5,817,366 A), in view of Nagayama et al. (US 5,701,055 A), Bennett (US 2,435,997 A), Grothe et al. (US 3,931,490 A), and Yamamoto et al. (JP 11-61386 A, US 6,179,923 B1 provided as English-language equivalent), as applied to claim 54 above, further in view of Bertelsen (US 3,110,620 A).

None of the cited references explicitly teach the features of these claims. Bertelsen teaches a process in which multiple layers (including transparent and conductive layers) are vapor deposited on a substrate, optionally via a mask, in which the substrate is situated above an evaporation coating source (Fig. 3 and 3:55-70). Consequently, it would have been obvious to one of ordinary skill in the art to modify the process of these references so as to arrange the substrate, mask, and coating source in this fashion. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully coating the substrate.

30. Claims 120-122 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al. (US 5,817,366 A), in view of Nagayama et al. (US 5,701,055 A), Bennett (US 2,435,997 A), Grothe et al. (US 3,931,490 A), Monk (US 4,187,801 A), and Yamamoto et al. (JP 11-61386 A, US 6,179,923 B1 provided as English-language equivalent), as applied to claim 55 above, further in view of Bertelsen (US 3,110,620 A).

None of the cited references explicitly teach the features of these claims. Bertelsen teaches a process in which multiple layers (including transparent and conductive layers) are vapor deposited on a substrate, optionally via a mask, in which the substrate is situated above an

Art Unit: 1762

evaporation coating source (Fig. 3 and 3:55-70). Consequently, it would have been obvious to one of ordinary skill in the art to modify the process of these references so as to arrange the substrate, mask, and coating source in this fashion. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully coating the substrate.

31. Claims 123-128 and 132-138 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al. (US 5,817,366 A) in view of Grothe et al. (US 3,391,490 A), Monk (US 4,187,801 A), and Nagayama et al. (US 5,701,055 A), as applied to claims 81, 85, 92, 95, and 98, respectively, above, further in view of Bertelsen (US 3,110,620 A).

None of the cited references explicitly teach the features of these claims. Bertelsen teaches a process in which multiple layers (including transparent and conductive layers) are vapor deposited on a substrate, optionally via a mask, in which the substrate is situated above an evaporation coating source (Fig. 3 and 3:55-70). Consequently, it would have been obvious to one of ordinary skill in the art to modify the process of these references so as to arrange the substrate, mask, and coating source in this fashion. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully coating the substrate.

32. Claims 129-131 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al. (US 5,817,366 A) in view of Grothe et al. (US 3,391,490 A), Monk (US 4,187,801 A), and Nagayama et al. (US 5,701,055 A), as applied to claim 129-131 above, further in view of Bertelsen (US 3,110,620 A).

None of the cited references explicitly teach the features of these claims. Bertelsen teaches a process in which multiple layers (including transparent and conductive layers) are vapor deposited on a substrate, optionally via a mask, in which the substrate is situated above an

Art Unit: 1762

evaporation coating source (Fig. 3 and 3:55-70). Consequently, it would have been obvious to one of ordinary skill in the art to modify the process of these references so as to arrange the substrate, mask, and coating source in this fashion. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully coating the substrate.

Conclusion

33. The prompt development of clear issues in the prosecution history requires that applicant's reply to this Office action be fully responsive (MPEP § 714.02). When filing an amendment, applicant should specifically point out the support for any amendment made to the disclosure, including new or amended claims (MPEP §§ 714.02 & 2163). A fully responsive reply to this Office action, if it includes new or amended claims, must therefore include an explicit citation (i.e., page number and line number) of that/those portion(s) of the original disclosure which applicant contends support(s) the new or amended limitation(s).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Fletcher III whose telephone number is (571) 272-1419. The examiner can normally be reached on Monday through Friday, 9 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1762

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

2/17/2006



William Phillip Fletcher III
Patent Examiner, USPTO
Art Unit 1762